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ABSTRACT

The Career Opportunities Program (COP), established under Title V of the Education Professions Development Act of 1967, was implemented in Philadelphia, Pennsylvania from 1970 through 1975. It served low-income persons, primarily blacks, who had no other means to enter the teaching profession. The primary project goals were to attract capable persons to education careers, improve employment opportunities of the poor, and establish productive career lattices for COP recruits. Overall, COP attained its major goals while benefiting all participants--trainees, teachers, pupils, principals, and college staff. COP was partially successful in attracting minority, low-income, target area residents to careers in education. The majority of trainees were black community residents, and a third were Model Cities aides with low incomes. The project also successfully implemented a vertical career ladder, which facilitated trainee movement at higher level instructional jobs. However, horizontal and diagonal lattices were not implemented. Additional findings are discussed in detail. (Author/RC)

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OFFICE OF RESEARCH
AND EVALUATION
THE SCHOOL DISTRICT OF PHILADELPHIA

CAREER OPPORTUNITIES PROGRAM

IN

PHILADELPHIA, PENNSYLVANIA

Report Number

7623

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Office of Research and Evaluation

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ABSTRACT

The Career Opportunities Program (COP), established under Title V of the Education Professions Development Act of 1967, was implemented in Philadelphia from 1970 through 1975. It served low-income persons, primarily blacks, who had no other means to enter the teaching profession. The primary project goals were to attract capable persons to education careers, improve employment opportunities of the poor, and establish productive career lattices for COP recruits.

Overall, COP attained its major goals while benefiting all participants--trainees, teachers, pupils, principals, and college staff. COP was partially successful in attracting minority, low-income, target area residents to careers in education. The majority of trainees were black community residents, and a third were Model Cities aides with low incomes (by office of Econovic Opportunity standards). The project also sucessfully implemented a vertical career ladder, which facilitated trainee movement ot higher-level instructional jobs. However, horizontal and diagonal lattices were not implemented.

Of the 450 persons admitted to COP, 40% dropped out, with the highest proportion from the Model Cities group. However, 39% of all trainees graduated from college as of December 1974, most with a dual Early Childhood/Elementary Education certiificate and a grade-point average higher than the equivalent of "B". Presently, 141 (80%) of these graduates are employed as teachers in the School District of Philadelphia. Therefore, the program's objective of improving educational and employment opportunities of persons otherwise unable to achieve a teaching degree was attained.

The program facilitated new staffing patterns, which benefited both teachers and pupils. The evaluation team found that teachers with COP aides implemented individualized and small group instruction more often than those without aides. Thus, the program achieved the objective of enabling teachers to utilize and work with auxiliary COP personnel.

When their college training and classroom experience increased, trainees were assigned more professional responsibilities, permitted to teach groups for longer periods of time, and occassionally allowed to teach the whole class. Therefore, as aides reached higher training levels, they improved in performance and achievement.

COP partially attained this objective of encouraging colleges to develop new patterns of teacher preparation. Participating colleges granted up to 24 credits for on-the-job training, practical knowledge of teaching, and skill mastery.

Increasing community involvement with participating schools was partially attained. A joint advisory council, with respresentatives from participating colleges, the School District, and the community, met monthly to plan and implement publicity, local resident recruitments, and a school-community communication link. However, the council remained advisory, and did not assume the desired leadership role.

COP aides had consistently better attendance rates than non-COP aides. This was attributed to (a) initial screening prodedures, (b) close supervision by the project staff, classroom teachers, and college faculty, and (c) COP aides' higher-level classroom responsibilities.

A study projecting teacher needs for the 1980-1981 school year predicted an oversupply of regular classroom teachers; therefore continuation of COP as currently implemented may be unnecessary. However, during the five-year period of 1970-1975, the Career Opportunities Program was satisfactorily implemented, and all objectives were partailly or fully attained.

CAREER OPPORTUNITIES PROGRAM

The Career Opportunities Program (COP) provides teacher training to low-income minority persons, who had no means to enter the profession otherwise. By assisting classroom teachers, COP also provides educational benefits to target-area school children.

RATIONALE

COP, established under Title V of the Education Professions Development Act of 1967, was implemented in Philadelphia in 1970. Participants in the program, called COP trainees, consist of School District paraprofessionals, persons recruited from the Model Cities community, Veterans In Public Service, and aides accepted through linkages with projects established under Title I of the Elementary and Secondary Education Act.

The education of COP trainees differs from traditional methods of teacher preparation because, as a condition of the grant, they receive extensive practicum experience throughout their college careers. During the current year COP trainees are employed as paraprofessional teacher aides in 43 Title I elementary schools, three Get Set Day Care centers, and five Head Start centers.

Trainees with less than 60 college credits are enrolled at Community College of Philadelphia. Upon earning an Associate of Arts degree, trainees transfer to Temple University or Cabrini College, and enroll in a pre-education curriculum to complete course work for a baccalaureate degree.

COP trainees are expected to conform with college regulations and maintain an acceptable grade-point average. A distinctive aspect of the program is that participating colleges grant up to 24 credits for on-the-job training and knowledge and skill mastery. Upon graduation, trainees receive teacher certification based on work experience and courses which supplemented previously-acquired teaching skills.

EXPECTED OUTCOMES

Teachers are expected to develop new staffing patterns by utilizing resources provided through COP. Team teaching and new roles for instructional and supportive personnel, such as resource persons, diagnosticians, and research specialists, can be implemented. There will be opportunity for cooperative lesson planning, preparation, and experimentation with different approaches. More attention will be given to informal learning, so that the natural curiosity of pupils can be reinforced.

It is expected that educational opportunities for children at schools with COP trainees will improve because a wider range of activities and more small-group instruction are possible. COP trainees offer reinforcement, personal supervision, rapid feedback, and beneficial learning experiences.

Employment of aides from the surrounding community is expected to stimulate more parent and community involvement in education. It should also improve the self-images of the children, because trainees have overcome many of the difficulties they now face.

MODE OF OPERATION

The project proposal included the following stipulations (overlapping numbers):

- 100 persons will be recruited from the Model Cities area and assigned to Model-Cities-area schools.
- 200 trainess will be selected from auxiliary personnel employed by the School District.
- 150 trainees will have a high school diploma.
- Up to 50 trainees will be admitted without a high school diploma, provided they qualify for a General Equivalency Diploma shortly.
- 75 trainees will enter the program with 15 hours of college credit.
- 25 trainees will have 60 college credits.
- 50 Vietnam veterans will be recruited.

For admission to the program, a trainee must (a) reside in a Philadelphia low-income area, (b) have earnings within the Office of Economic Opportunity income scale, and (c) demonstrate interest in an education career and express commitment to the training program.

The design of COP's educational component involves a magnet concept and an umbrella concept. In the magnet concept professional and general education courses are offered for credit at five magnet schools. Trainees receive practicum credit for classroom assistance. In the umbrella concept professionals review individual needs, courses completed, and credits earned, suggesting additional work in necessary areas. After a credentials review, trainees are assigned to the magnet school where appropriate instruction is offered.

The educational component is the joint responsibility of the three participating colleges and the School District. Counselors help trainees with individual problems (job related or personal) that might interfere with career goals and success. Monthly conferences and workshops, supervised by the professional staff and a training supervisor, involve all COP aides. The content of the meetings is flexible so that the needs of the participants are met.

A combination released/shared-time formula is used for trainees to go to college and workshops two or three days, and serve as classroom aides for the remainder of the week. Trainees are assigned to work in Grades K-3 and Get Set Day Care centers.

The employment component includes a career-ladder lattice. Depending on academic training and experience, trainees are assigned to one of six job levels (rungs on the career ladder). Trainees move vertically to higher-level jobs in the same occupational track, horizontally to positions in technical or school-community-support tracks, and diagonally into higher-paying positions in either track.

Movement criteria include satisfactory job performance and successful completion of a prescribed academic program. Upgrading is contingent upon available job openings.

A COP advisory council is comprised of representatives from Model Cities, participating colleges, social service agencies, the community, and the School District. The council meets regularly to interview new candidates, implement facets of the project, and gauge progress toward the objectives.

THE 1970-1975 EVALUATION

Because this is the last year of the project's funding by the federal government, this report provides an evaluation of COP's five years of operation. The project evaluation concentrated on four major areas: trainee participants, the school system, the training process, and the school environment.

Supplementary studies compared the attendance patterns of COP and non-COP aides and assessed how COP can help meet the postulated teacher needs for the 1980-1981 school year.

The evaluation team monitored classes with and without COP trainees, to ascertain benefits of the aides' service. Principals, participating teachers, trainees, and college instructors and administrators responded to COP questionnaires. Data gathered from last year's evaluation, project records, interviews, tests, and observations were incorporated in this report.

IMPLEMENTATION

During the five-year period, the project was well implemented, with modifications instituted when necessary.

Most COP aides (85%) were assigned to elementary schools, serving Grades K-5. The other 15% were assigned to Get Set and Head Start Day Care Centers. Although the intended mode of operation was to provide COP services only through the third grade, linkage programs and dual certifications in elementary and early childhood education extended services through the fifth grade.

The majority of the COP aides (87%) provided small-group instruction for children with special needs. Aides helped plan lessons and prepare instructional materials for the classroom. In emergency situations, they served as substitute teachers, performed clerical work, served hall duty, or supervised breakfast/lunch programs.

According to the project proposal, 50 of the aides were to be Vietnam veterans. Only 18 were recruited (from the Model Cities component) during the five-year period; of these, five dropped out of the program, and seven have graduated. The small number of veterans and males was a serious drawback to the fulfillment of the total project's intended mode of operation.

Only in the first year were counselors provided to assist trainees. During the first and final years of the program, five resource teachers were assigned to help aides develop their teaching skills. In the 1974-1975 school year, each resource teacher was assigned an average of 18 trainees. From 1971 to 1974, 10 resource teachers were provided, and their average case load was approximately 29 trainees. Although resource teachers provided valuable training service, they lacked the skills of a professional counselor.

Attendance at college classes and in-service training sessions proceeded mostly as described in the MODE OF OPERATION section of this report. Trainees worked three days in the classroom and attended college two days a week. Although substitute aides were usually not provided for these two days, during the current year funds were allocated for substitute service at some schools. When Follow Through was linked with COP in 1972, its aides worked full time and attended college at night.

The magnet concept as described in MODE OF OPERATION was not implemented. However, the umbrella concept was partially implemented, and resource teachers evaluated the strengths and weaknesses of the trainees.

During the project's first year, Model Cities aides were clustered in North Philadelphia schools, with several trainees assigned to a single school. Other COP aides were scattered throughout the city, usually one to a school. From the second year of the program, all trainees (except those assigned to Get Set centers) were assigned to schools according to the cluster concept. This permitted resource teachers to have greater group control over the trainees, and principals could see the project's impact.

For the first three years of the program, Temple University and the Community College of Philadelphia established a joint educational program granting credit for on-the-job experience, and providing special course-work sequences for trainees. In January 1973, Cabrini College became part of COP.

ATTAINMENT OF OBJECTIVES

Questionnaires were used to gather opinions about COP. On Spring 1974 surveys, 132 of 357 principals, participating teachers, and aides responded. Information was summarized in the "1973-1974 Evaluation of the Career Opportunities Program," by Edward K. Brown. Other questionnaires were completed by March 1975, and 172 of 272 principals, teachers, trainees, and college staff members responded.

From September 1974 to March 1975, the evaluation team observed 20 classrooms with aides in 16 Title I schools, and 77 classrooms without aides in 15 comparison (non-Title-I) schools.

Evaluators used the Scheiner Observation System, developed to record on a machine-scorable coding form 49 classroom activities performed by the teacher alone, the aide alone, or both together. Each observation period lasted 50 minutes. Major areas evaluated in five-minute intervals were instructional group size, differentiation of materials, teacher and aide behavior, overall pupil attitude, inactivity of aide or teacher, subject matter, and use of pupil time. The frequency with which teachers and aides performed the various activities in each observation period was recorded and averaged.

A. Trainee Participants

Objective 1: To attract low-income residents of the target area to careers in teaching, which will improve their education and employment opportunities.

This objective was partially attained.

Stipulations that COP participants be low-income residents of target-school areas were not strictly enforced. Inspection of records and interviews with program personnel revealed that income figures were recorded primarily by applicants; IRS tax forms were not used to verify the statements. The participants, mostly women, were asked to record only what they alone earned, and not their husbands' incomes. However, it was ascertained that the Model Cities applicants in 1970 had lower incomes and actually were residents of the Model Cities area. Aides already working for the School District were already earning more than the Office of Economic Opportunity low-income classification.

A 1974 evaluation survey of a predominantly Model Cities sample conducted by Educational Research Associates revealed that 98 of the 134 trainees enrolled during the 1973-1974 year reported their family income level below $4,400. Thirty-five entered the program with incomes between $4,500 to $10,000. Of the 450 trainees admitted to the program from 1970 to 1974, it was estimated that 40 were on welfare. However, in-house aides had higher incomes than the Model Cities group.

The 1974 survey also showed that 128 trainees were black, three were Puerto Rican, and three were white. There were 122 females and 12 males, six of them veterans. On entering the program, 93 were high school graduates, 25 had attended college, and 16 had no high school diploma.

COP trainee participants are categorized as employees or nonemployees. Employees include in-house trainees, who were already working for the School District at the program's inception, and Head Start and Follow Through aides. Nonemployees are COP trainees from the Model Cities program.

For each year of COP, the evaluation team determined how many employees and nonemployees (a) were admitted to the program, (b) graduated from the program and were employed as teachers in the School District, (c) dropped out of the program, (d) graduated and/or received education certificates, and (e) were presently enrolled in the program. Evaluators also investigated the impact of the program on individual participants in terms of educational improvement, career opportunities, and personal growth.

During the first year of operation, the largest number of trainees (319) were admitted to COP from both the employee and nonemployee categories (Table 1). Only 131 enrolled over the next four years. About twice as many employees (212) as nonemployees (107) were admitted in 1970. Forty-three employees were admitted during the last two years, 1973 and 1974.

The status of COP admittees from the program's inception to December 1974 is summarized in Table 2. Two-fifths of the trainees terminated involvement with

the program. Those admitted from Follow Through had a 62% dropout rate. Nearly half of the nonemployee trainees dropped out of the program. In-house trainees comprised half of all aides, yet only 30% of them dropped out.

Trainee terminations from the program are summarized by year in Table 3. Table 4 shows trainees' reasons for dropping out of the program. The three most common causes were health (27%), personal (26%), and academic failure (13%). Eighty percent of the withdrawals were voluntary and 20% were involuntary.

Table 5 summarizes trainee graduations by year. One hundred twenty-six (71%) of the employees admitted graduated from 1972 to 1974; 124 of them were in-house aides. Fifty-one nonemployees graduated from 1972 to 1974. The largest graduation of COP trainees occured in 1974, when 140 (79%) of the 177 expected to earn degrees actually finished their studies.

From data submitted by the deans of Temple University and Cabrini College, Table 6 summarizes the number of trainees graduating from each educational program. Most trainees graduated with dual certification, or certification in Early Childhood Education or Elementary Education.

The five major goals of COP were ranked on a scale of 1 to 5 (most to least important). Thirteen of 25 principals and 26 of 47 participating teachers ranked the goal of attracting low-income people to a career in education as the most important.

Fifty of 92 trainees responded to an open-ended survey. Most stated that the project gave them the opportunity to (a) further their education, (b) lay a foundation for long-term career development, and (c) enter the teaching profession. COP trainees felt that close professional supervision in the schoolroom and at training sessions contributed to their effectiveness. The combination of college courses and on-the-job training was viewed favorably by both principals and teachers.

COP aides nearly unanimously planned to become full-time teachers upon graduation. As of December 1974, 177 had graduated and 141 were employed as full-time teachers. Therefore the objective, to attract low-income residents to a teaching career while improving their educational and employment opportunities was partially attained.

Objective 2: To establish career lattices so that productive careers can be followed by those recruited through the program.

This objective was only partially attained.

One hundred forty-one graduates are presently full-time accredited teachers, earning a normal teacher's salary. Thus, the career-ladder lattice successfully facilitated trainee movement vertically to higher-level jobs in the same track.

Horizontal career lattices, in which trainees would move to technical or school-community-support occupational tracks, were never implemented. Diagonal lattices, with movement into higher paying positions in those tracks, were also unsuccessful.

B. The School System

Objective 3: To provide for and facilitate new staffing patterns which augment and support the children's learning.

This objective was fully attained in all facets.

The evaluation team sought to determine whether classroom teachers increased their ability to utilize and work with personnel provided by the project. Also assessed was the program's impact on operation of the school and of other federal and school-aide projects. The performance of COP aides was compared with non-COP employees in the same job classification, and the quality of classroom instruction with COP aides was compared with classes without aides.

Table 7 summarizes the classroom responsibilities and duties that participating teachers reported they assigned to COP trainees. Initially, all teachers used COP trainees for individual and small-group instruction in reading and mathematics. They also assigned such noninstructional tasks as taking roll, monitoring, and maintaining monthly records.

Two fifths of the respondents indicated that they significantly changed the responsibilities of their COP trainees as a result of confidence in them, and because of the increased professional levels trainees achieved. Teachers permitted COP trainees to instruct for longer periods of time, assume more professional responsibility, and plan or demonstrate lessons.

Teachers confided in personal interviews with the evaluation team that although it was against state and School District regulations, they preferred having a COP trainee act as a substitute rather than the one assigned by the district. Loss of classroom continuity was minimal when COP aides assumed responsibility for the class.

Trainees similarly reported that with increased college credit and classroom experience, teachers assigned them to more responsible tasks. As noted in Table 8, when the trainees were first assigned they were required to prepare

lesson plans and select classroom materials and activities. As they acquired more college credit, the responsibilities of two thirds of the trainees changed significantly. They were given more professional responsibility, permitted to teach groups for longer periods of time, and allowed to teach the whole class on some occasions.

Thus, the program did enable teachers to increase their ability to utilize and work with auxiliary personnel provided by the project.

Table 9 summarizes time allotment in 47 COP classrooms. Teachers reported that aides spent the most time performing instructional tasks, and the least doing clerical and mechanical tasks. Over half of the responding COP-aided teachers reported that they had been assigned a COP aide full time, eighty-five percent had an aide more than half the time.

Table 10 shows further advantages of COP-trainee assistance as expressed by 39 participating teachers who had taught for at least one year with and without the assistance of a classroom aide. Most (95%) reported that with an aide they were providing more individualized instruction, and 27 were using more new teachniques in the classroom. Forty-nine percent of the teachers with aides had more contact with parents, while 35 percent indicated they were performing fewer noninstructional tasks, such as housekeeping and clerical duties. Table 11 reveals that the 47 teachers with COP aides were able to spend more hours with small groups of children and in implementing individualized instructional programs.

Principals indicated that the program had great impact upon their schools by (a) introducing a career ladder, (b) increasing tutoring of individual children, and (c) improving classroom management (Table 12). One fourth of the 25 principals felt that teachers had more contact with parents because of the trainee's assistance.

Thus, by providing a second adult in the room, the program had a positive effect on the operation of those classes, and on COP-aided teachers and children.

Objective 4: To determine differences in the performance and achievements of aides relative to training levels.

This objective was attained.

According to the data obtained from the 1974 sample, there is very little difference between educational backgrounds of trainees. An earlier analysis of educational backgrounds showed that most trainees (89%) had received diplomas from comprehensive or regular high schools. However, educational background did not appear to influence trainee performance in college classes.

The School & College Ability Test (SCAT) was given to each applicant, and there were appreciable differences between active, graduated, and terminated trainees' scores. More terminated trainees had low SCAT scores. As expected, trainees entering the program with previous college experience scored better than other high school graduates.

The college performance of 317 COP trainees, expressed in grade-point averages, is shown in Table 13. About half the aides had grade-point averages between "B" and "A". Overall, 84% of all trainees had grade-point averages of "C" or better, which qualified them to continue as undergraduates.

Table 14 breaks down aides' grade-point averages by active, terminated, and graduated status. About half the trainees who were dropped from the program had less-than-acceptable averages. Only about 11% of the active trainees are on academic probation. The majority (77%) of trainees who graduated completed their college work with a "B" or better grade-point average.

Half the participating teachers had a choice about the assignment of a COP trainee to their room. However, 77% of the teachers surveyed indicated that if they were given a choice, they would have requested a COP trainee's assistance. It appears that principals assigned trainees to their most experienced teachers who had served in the respective schools for the longest duration. In this way, trainees were able to learn from teachers with many years in the profession.

COP had had impact on other federal and school-aide projects by providing more competent aides to Head Start, Follow Through, Get Set, and Classroom and Kindergarten Aides. Although this is the phase-out year for COP, Head Start and Follow Through have decided to sponsor a similar program for their own aides.

C. The Training Process

Objective 5: To encourage institutions of higher education to develop new patterns of teacher preparation and to improve existing ones.

This objective was partially attained.

No major changes were made in entrance, curriculum, or practicum requirements for COP undergraduate students pursuing degrees at Temple University or Cabrini College. However, participating colleges did establish some remedial mathematics, foreign language, and science courses. Temple University did permit COP trainees to take two six-credit student-teaching assignments rather than one 12-credit course. Some COP aides were allowed to take student teaching

for three credit hours over four semesters. Difficulties in contracting with surrounding school districts to permit a work-study program patterned after COP constituted a problem.

Universities, the community, and the School District formed joint committees, functioning 1970 through 1974, to provide (a) aide selection and recruitment, (b) curriculum assistance, and (c) counseling and scholastic tutoring.

An ongoing effort was made by the colleges and the School District to advise trainees in their dual classroom-aide/undergraduate-student role. Monthly workshops were conducted to maximize the classroom effectiveness of trainees, focusing upon cognitive and affective domains of kindergarten to third-grade pupils. Trainees were divided into two groups, roughly approximating their status as undergraduate students (freshman/sophomore and junior/senior). Five resource teachers, working out of the project director's office, provided ongoing training and counseling to them in two to four visits a month.

Objective 6: To determine the effectiveness of the COP training process.

Joint on-the-job and college training was found to be a practical and effective approach to teacher preparation.

Separate questionnaires were distributed to college professors, principals, and teachers to determine the characteristics and benefits of the COP training process. On questionnaires, trainees were evaluated by college professors in four areas critical to classroom instruction (Table 15). In each category, the COP student group was believed to be significantly more effective than non-COP undergraduates, indicating the suitability of joint college and on-the-job training.

Principals stressed the fact that COP trainees, because of the educational component and additional supervisory attention, exhibited a more professional approach to classroom assignments. They expressed satisfaction with the screening process which assured the school of quality local, low-income aides. Table 16 shows that 25 principals rated COP trainees as superior to regular aides in essential skill areas.

Forty-seven classroom teachers who worked with COP trainees were asked to rate the performance of their aides. Again, a highly satisfactory view of COP trainees was exhibited (Table 17). Teachers were gratified with the trainees' professionalism both in and out of the classroom. They believed the aides exhibited a valuable understanding of the scholastic and emotional needs of children.

In open-ended responses, principals and teachers agreed that the COP training program produced effective aides with superior skills (Table 18). Therefore, the objective was attained.

D. The School Environment

Objective 7: To increase community involvement with participating schools.

This objective was partially attained.

An advisory council, comprised of representatives from the community, School District, and participating universities, was established to plan and implement the program. Community participants, by mandate at least one third of the council membership, included Model Cities personnel, COP trainees, and community residents. School District representatives included education specialists and personnel from the linkage programs.

The council met monthly, from September to June, until the final year of the program. It did not assume a leadership role in determining policy, but remained advisory. The council was instrumental in publicizing the program in the community and supportive in the campaign for continued funding.

Residents were selected as trainees, who act as liaisons between the school and community, increasing community involvement with participating schools. A 50% random sample of active trainee participants was surveyed. Responses showed that 36 of 45 trainees had lived in the neighborhoods five or more years, 29 lived within a three-block radius of the school, and 57 were in daily contact with the pupils.

Selection of participants residing in the local community was attained. However, local community involvement in the actual training of the participants was not fully achieved.

E. COP Attendance Patterns

Objective 8: Compare the attendance patterns of COP and non-COP aides

The objective was fully attained. Random samples of 80 COP and 398 non-COP aides were drawn and their attendance patterns compared. The non-COP aide group was drawn from seven School District projects -- Checkpoint (70), Classroom Aides (41), Follow Through (68), Get Set (110), Head Start (30), Kindergarten Aides (63), and Reading Skills (18). Attendance data were obtained from the Division of Payroll from September 1974 to May 1975.

A significantly higher level of instructional continuity prevailed in classrooms served by COP trainees. COP aides had consistently better attendance rates than non-COP aides. Table 19 shows a summary of the attendance patterns of COP and non-COP aides.

The superior attendance pattern of COP trainees may be attributed to (a) initial screening procedures, (b) close supervision of aides by the project manager's staff, classroom teachers and college faculty members, and (c) the generally higher level of classroom responsibilities assigned to COP aides.

F. Projection Study

Objective 9: To assess how COP can help meet the postualted teacher needs for the 1980-1981 school year.

This objective was fully attained.

Anticipated teacher shortages, a major element of the Career Opportunities Program rationale, no longer characterizes the teacher job market. Sustained years of declining births and large numbers of college graduates prepared to teach have transformed the preceding decades' shortages into projected surpluses.

A critical factor in determining the trend in school enrollment, and consequently teacher demand, is the annual birthrate. Birthrates, which have been declining since the late 1950s, produced in the School District a peak elementary enrollment of 172,000 in 1967. The opening of the 1975-1976 school year will find an anticipated 140,000 youngsters on roll, a decline of 18.7% in only nine years.

At the secondary level, the full impact of elementary enrollment declines is expected during the 1976-1977 school year; thereafter, secondary school enrollments are expected to continue to decline through the 1980s. The ripple effect of reductions in elementary enrollment has already been seen in junior high and middle school grades. Table 20 summarizes the patterns of student enrollment and teacher employment in public schools in Philadelphia, the commonwealth, and the nation over the 1967-1975 period, including projections for 1975-1976.

Studies of enrollment patterns and teacher needs within the commonwealth, produced by the Pennsylvania Department of Education, indicate that enrollment in elementary and secondary public schools peaked during the 1969-1970 and 1973-1974 school years. Enrollment in the School District has paralleled statewide patterns with a lag of two to three years. Statewide, the number of teachers employed has increased, and is expected to continue increasing for the next two years, after which declines are projected. The statewide increase is due to reductions in student-teacher ratios, and a broadening spectrum of mandated programs.

Two approaches were used to project the School District's needs for 1980-1981. The first was based on the assumption that the employment patterns for teachers in the Philadelphia School District will maintain relationships to state and national teacher totals similar to those of the past eight years. The second approach relied upon the application of three possible student-teacher ratios (high, probable, and low) to the middle enrollment projection made by the Philadelphia Planning Commission. A high degree of consistency was found in the teacher needs of the School District projected by these two methods.

In the first approach, three estimates (high, probable, and low) of the proportion of teachers in Pennsylvania of teachers in Pennsylvania and the nation which are expected to be employed by the School District in 1980-1981 were based on the percentage of state and national teachers employed in Philadelphia over the period 1967-1975. (Complete data are shown in Appendix A.) The three estimated proportions for 1980-1981 were then applied to the projected 1980-1981 numbers of state and national public school teachers reported by the Pennsylvania Department of Education. In the second approach, high (25:1), probable 22:1), and low (20:1) student-teacher ratios were applied to enrollment projections for the School District for the 1980-1981 school year made by the Philadelphia Planning Commission. (Complete data for the 1967-1975 period are found in Appendix B.) The resulting projections of the number of teachers to be employed by the School District during 1980-1981 are shown in Table 21.

School District teacher needs during the 1980-1981 school year are expected to remain within 300 of the 11,337 teachers to be employed as of September 1975. A high degree of confidence in this forecast of teacher needs seems warranted. The students who will be enrolled for the 1980-1981 school year have already been born; therefore, a sudden return to higher enrollments is most unlikely during this six-year period. Possible shifts of students into or out of nonpublic schools constitutes the major element of uncertainty in projected School District teacher needs during the 1980-1981 school year.

Specific areas within the School District were identified where teacher shortages are anticipated -- six elementary areas (bilingual, reading, mathematics, early childhood, alternative programs, and special education) and four secondary areas (bilingual, alternative programs, special education, and special subjects). Despite anticipated surpluses of teachers during the 1980s, an insufficient supply of qualified teachers seems most likely in bilingual education, alternative programs, and special education. A program attracting qualified low-income neighborhood persons to professions in teaching, patterned along the lines of COP, could help to satisfy anticipated teacher needs in these areas.

COP can help meet the School District's projected teacher needs for the 1980-1981 school year. By training teachers in such areas as bilingual education,

alternative programs, and special education, the program can alleviate anticipated shortages in these specialized fields. However, because of the expected oversupply of regular classroom teachers in 1980-1981, the continuation of COP as currently implemented may be unnecessary.

SUMMARY AND CONCLUSIONS

Overall, the Career Opportunities Program attained its major objectives while benefiting all participants--trainees, teachers, pupils, principals, and college staff.

COP was partially successful in attracting minority, low-income persons from the target area to careers in education. Program records show that the majority of trainees were black community residents, and that most Model Cities aides were low-income by Office of Economic Opportunity standards.

Of the 450 persons admitted to COP, 40% dropped out; the highest proportion of withdrawals was in the nonemployee (Model Cities) group. However, as of December 1974, 39% of all trainees graduated from college, most with a dual Early Childhood/Elementary Education certificate and a grade-point average higher than "B". Eighty percent of these graduates are presently employed as teachers in the School District of Philadelphia. Therefore, the objective of improving the educational and employment opportunities of persons otherwise unable to achieve a teaching degree was attained.

COP was also successful in implementing a vertical career-ladder lattice, which facilitated trainee movement to higher-level instructional jobs. However, horizontal and diagonal lattices were not implemented.

The program facilitated new staffing patterns, which aided both teachers and pupils. Nearly all teachers reported that since the trainee assignment, they were able to provide more individualized instruction. Two thirds noted that they were using more new techniques in the classroom, and two fifths reported having more contact with parents. The evaluation team found that teachers with COP aides implemented individualized and small-group instructional programs more often than those without aides. Thus the program achieved the objective of enabling teachers to increase their ability to utilize and work with COP auxiliary personnel.

Both trainees and participating teachers reported that, with increased college training and classroom experience, trainees were assigned to more professional responsibilities, were permitted to teach groups for longer periods of time, and were allowed to teach the whole class on occasions. Therefore, as aides reached higher training levels, they improved in performance and achievements.

COP attained the objective of encouraging colleges to develop new patterns of teacher preparation. No major changes were made in participating colleges'

entrance, curriculum, or practicum requirements. However, to meet the needs of trainees with deficiencies in mathematics, science, and/or foreign language, some remedial courses were established at participating colleges. A distinctive aspect of COP is that the colleges granted up to 24 credits for on-the-job training, practical knowledge of teaching, and skill mastery.

COP aides, participating teachers, principals, and college staff indicated by survey responses that joint college and on-the-job training was an efficient means of teacher preparation. The objective to determine the effectiveness of the COP training process therefore was achieved.

The increase of community involvement with participating schools was partially attained. A joint advisory council, composed of representatives from participating colleges, the School District, and the community, met monthly to plan and implement all facets of the program. The council increased community participation by generating publicity, encouraging local residents to become trainees, and establishing a communication link between the school and community. However, the council did not assume the desired leadership role in determining policy, and remained advisory.

COP Aides had consistently better attendance rates than non-COP aides which was attributed to better (a) initial screening procedures, (b) close supervision of aides by the project manager's staff, classroom teachers and college faculty members, and (c) the generally higher level of classroom responsibilities assigned to COP aides.

A projection study assessing postulated teacher needs for the 1980-1981 school year found that because of the expected oversupply of regular classroom teachers, the continuation of COP as currently implemented may be unnecessary.

Overall, the Career Opportunities Program operated satisfactorily during its five-year operation period, partially or fully attaining all objectives.

TABLES

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TABLE 1

ADMITTEES TO CAREER OPPORTUNITIES PROGRAM

Category	1970	1971	1972	1973	1974	TOTAL
In-House	211	14	4	0	0	229
Follow Through	1	32	6	19	2	60
Head Start	0	0	0	20	2	22
Total Employees	212	46	10	39	4	311
Nonemployees (Model Cities)	107	16	16	0	0	139
Grand Total	319	62	26	39	4	450

TABLE 2

STATUS OF COP ADMITTEES, DECEMBER 1974

CATEGORY	ACTIVE	TERMINATED	GRADUATED	TOTAL
In-house	36	69	124	229
Follow Through	21	37	2	60
Head Start	12	10	0	22
Total Employees	69	116	126	311
Nonemployees (Model Cities)	23	65	51	139
Grand Total	92	181	177	450

TABLE 3

TRAINEES TERMINATED FROM CAREER OPPORTUNITIES PROGRAM

Category	1970	1971	1972	1973	1974	TOTAL
In-House	19	21	19	6	4	69
Follow Through	0	3	11	13	10	37
Head Start	0	0	0	5	5	10
Total Employees	19	24	30	24	19	116
Nonemployees (Model Cities)	12	12	15	15	11	65
Grand Total	31	36	45	39	30	181

TABLE 4

REASONS FOR TERMINATION FROM CAREER OPPORTUNITIES PROGRAM

Voluntary Termination		Involuntary Termination	
Reason	Trainees	Reason	Trainees
Health	49	Academic Failure	23
Personal	48	Excessive Absence	2
Another Program	9	Dismissed from Job	1
Maternity	9	Budgetary	6
Moved	5	Deceased	4
Home Pressure	9		
Other	16		
Total Voluntary	145	Total Involuntary	36

TABLE 5

GRADUATES FROM CAREER OPPORTUNITIES PROGRAM

Category	1972	1973	1974	Total
In-house	5	17	102	124
Follow Through	0	0	2	2
Head Start	0	0	0	0
Total Employees	5	17	104	126
Nonemployees (Model Cities)	1	14	36	51
Grand Total	6	31	140	177

TABLE 6

COP TRAINEES GRADUATING FROM COLLEGE

Institution and Major	1971-1972	1972-1973	1973-1974	1974-1975*	Total 1971-1975	Expected 1975-1976
Temple University						
Elementary Education	-	-	2	8	10	-
Dual - Early Childhood and Elementary Education	6	30	95	13	144	-
Early Childhood	-	-	1	14	15	2
Cabrini College						
Elementary Education	-	-	-	21	21	11
Special Education	-	-	-	6	6	1
Early Childhood	-	-	-	12	12	7

*Including expected graduations.

TABLE 7

SUMMARY OF SCHOOL SERVICES PROVIDED BY COP TRAINEES

Type of Service	All Trainees (N = 61)	Active Trainees (N = 35)	Linkage Trainees (N = 10)	Graduated Trainees (N = 16)
Instructional:				
Individual/small-group instruction	47	27	12	8
Classroom management	15	11	1	3
Planning and conducting lessons	14	10	3	1
Teaching whole class	4	4	-	-
Preparing and using equipment/materials	7	5	2	-
Non-instructional:				
Supervising pupils in yard, hall, lunchroom, etc.	31	15	9	7
Taking attendance, monthly reports	22	12	6	4
Duplicating materials	16	12	1	3
Giving/marking papers, tests	14	10	2	2
Completing report cards/ records	15	7	2	6
Filling out orders, collecting money for trips, etc.	12	7	1	4

TABLE 8

CHANGING CLASSROOM RESPONSIBILITIES REPORTED BY COP TRAINEES

Responsibilities	All Trainees (N = 61)	Active Trainees (N = 35)	Linkage Trainees (N = 10)	Graduated Trainees (N = 16)
Initial Responsibilities[1]:				
Writing lesson plans	34	15	9	10
Choosing materials/activities	24	8	8	8
Suggesting ways to introduce new concepts/materials	13	4	4	5
Planning free-time activities, trips, science experiments	8	7	-	1
Changes in Responsibilities[2]:				
More professional responsibility	32	19	3	10
Experiences in teaching lessons to whole class	13	7	2	4
More small-group teaching and classroom management	19	10	-	9
Teach more subjects	10	3	2	5
Supervise aides/student teachers	3	-	-	3

[1]Fifty-two of the COP trainees indicated that they were involved in planning classroom activities.

[2]Forty-three of the COP trainees indicated that their responsibilities and/or duties had changed because they had earned college credits.

TABLE 9

GROSS TIME ALLOTMENTS REPORTED BY 47 TEACHERS

Time-Allotment Rank	Number of Teachers Responding*			
	Instructional (lesson planning, class lessons, constructing tests, etc.)	Administration (class trips, recess, developing instructional materials, giving tests, etc.)	Clerical (ordering supplies, keeping records, typing, grading papers, etc.)	Technical (operating A-V equipment, running copying machines, etc.)
Teacher before aide:				
Spent most time	34	2	2	2
Spent least time	0	1	12	28
COP aide now:				
Spends most time	39	2	2	3
Spends least time	2	6	19	21

*Some teachers did not respond fully to the questionnaire item.

TABLE 10

EFFECT OF HAVING COP AIDE, REPORTED BY 39 TEACHERS

Activity of Teacher	Number of Teachers Responding		
	Less Now	Same Now	More Now
Contact with parents	2	18	19
Providing individualized instruction	0	2	37
Teacher noninstructional tasks (e.g., housekeeping and clerical)	14	14	11
Use of new techniques in classroom	2	10	27

TABLE 11

AVERAGE DAILY TIME SPENT WITH CHILDREN
BY 47 TEACHERS WHO HAVE COP AIDES

Type of Contact	Number of Teachers Responding					
	No time	½ - 1 hour	1½ - 2 hours	2½ - 3 hours	3½ - 4 hours	4½ - 6 hours
Working with 1 or 2 children	7	35	4	0	0	1
Working with group of 3-7 children	3	27	13	3	1	0
Working with group of 8-15 children	3	22	12	6	3	1
Working with entire class	0	14	19	4	6	4
No direct contact with children	7	35	4	1	0	0

TABLE 12

EFFECT OF COP, REPORTED BY 25 PRINCIPALS

IMPACT	Number of Principals Citing it
Introduction of a career ladder	20
More teacher time for individual children	21
Increased tutoring of individual children	18
Improved classroom management	17
More teacher time for entire class	14
Fewer noninstructional teacher tasks	13
More teacher contact with parents	10
Increased scheduling flexibility	8

TABLE 13

COLLEGE-GRADE AVERAGES OF COP TRAINEES, BY EMPLOYMENT CATEGORY

Range of Grade-Point Averages*	Employees		Nonemployees (Model Cities)		Total	
3.01 - 4.00	110	(55%)	37	(32%)	147	(46%)
2.01 - 3.00	69	(34%)	51	(44%)	120	(38%)
1.00 - 2.00	22	(11%)	28	(24%)	50	(16%)
Total	201	(100%)	116	(100%)	317	(100%)

Cumulative grade-point averages as of December 1973, at the time of graduation, or at the time of resignation/termination (4.00 = A; 3.00 = B; 2.00 = C; 1.00 = D). Averages of 31 trainees were not available at time of this analysis.

TABLE 14

COLLEGE-GRADE AVERAGES OF COP TRAINEES,
BY STATUS CATEGORY

Range of Grade-Point Averages*	Active		Terminated		Graduated		Total	
3.01 - 4.00	39	(35%)	7	(10%)	101	(77%)	147	(47%)
2.01 - 3.00	58	(53%)	31	(42%)	31	(23%)	120	(38%)
1.00 - 2.00	13	(12%)	35	(48%)	0	(0%)	48	(15%)
Total	110	(100%)	73	(100%)	132	(100%)	315	(100%)

*Cumulative grade-point averages as of December 1973, at the time of graduation, or at the time of resignation/termination (4.00 = A ; 3.00 = B; 2.00 = C; 1.00 = D). Averages of 63 trainees were not available at time of this analysis.

TABLE 15

COMPARISON OF COP AND NON-COP UNDERGRADUATE STUDENTS
BY COLLEGE FACULTY MEMBERS

Rated Skills	Number of Respondents	Percentage of Respondents Reporting		
		COP Students Superior	No Significant Differences	Non-COP Students Superior
Lesson Planning	19 (100%)	48%	26%	26%
Effectiveness in conveying ideas	13 (100%)	69%	8%	23%
Teaching methods and techniques	17 (100%)	47%	24%	29%
Experience in working with children	12 (100%)	83%	17%	0%

Thirty-five college faculty members responded to a questionnaire. This table includes only the responses of those having personal knowledge of COP trainees.

TABLE 16

COMPARISON OF COP TRAINEES AND REGULAR CLASSROOM AIDES BY 25 PRINCIPALS

Rated Skills	Number of Principals Reporting		
	COP Aides Superior	No Significant Difference	Regular Aides Superior
Knowledge of subject matter	18	7	0
Lesson presentation	20	4	1
Individual-instruction ability	16	9	0
Small-group-instruction ability	17	8	0
Clarity and effectiveness in conveying ideas	15	10	0
Helpfulness in maintaining class discipline	9	16	0
Getting along with children	10	15	0
Getting along with parents	6	19	0
Getting along with teachers	8	16	1*
Getting along with other aides	6	18	1*
Understanding the needs of neighborhood children	6	19	0

*Trainee time away from class to attend in-service and college classes was felt to generate staff friction.

TABLE 17

PERFORMANCE RATING OF COP TRAINEES BY CLASSROOM TEACHERS

Rating	Number Giving Rating
Excellent	24
Good	18
Fair	5
Poor	0
Total	47

TABLE 18

OPEN-END QUESTIONNAIRE RESPONSES ASSERTING SUPERIORITY OF COP TRAINEES OVER NON-COP AIDES

Comments by Principals (N = 25)	Number Making Comment	Comments by Teachers (N = 47)	Number Making Comment
COP aides, because of educational component, exhibit aggressive approach to classroom assignments.	8	COP trainees have more knowledge of scholastic and emotional needs of children.	32
COP aides are better trained and receive additional supervisory attention.	8	COP trainees are more helpful and assertive in class.	29
COP screening process resulted in higher-caliber, local low-income residents available to the school.	7	COP trainees exhibit a higher degree of professionalism both in and out of classroom.	20
		COP trainees take a more active part in classroom planning.	16

TABLE 19

DISTRIBUTION OF ABSENCES FOR
COP AND NON-COP AIDES
SEPTEMBER, 1974-MAY 1975

AIDE GROUP	DAYS ABSENT					
	0-5	6-10	11-15	16-20	21-25	25-26
COP (N=80)	29%	37%	19%	9%	5%	1%
NON-COP (N=398)	26%	26%	23%	12%	7%	6%

TABLE 20

STUDENT ENROLLMENT AND TEACHER
EMPLOYMENT PATTERNS IN PUBLIC SCHOOLS OF CITY, STATE, AND NATION

SCHOOL YEAR	GRADE LEVEL	STUDENT ENROLLMENT			TEACHERS EMPLOYED FULL TIME		
		PHILA.	PA.	US.	PHILA.	PA.	US.
1967-1968	K-12	279,992	2,278,000	43,891,000	10,268	95,500	2,081,000
	Elem.	171,805	1,258,000	00,000,000	5,212	00,000	0,000,000
	Sec.	108,187	1,020,000	00,000,000	5,056	00,000	0,000,000
1968-1969	K-12	283,583	2,307	44,944	10,181	100,959	2,161
	Elem.	171,324	1,257		5,018		
	Sec.	112,259	1,050		5,163		
1969-1970	K-12	284,068	2,346	45,619			
	Elem.	170,718	1,267				
	Sec.	113,350	1,079		5,292		
1970-1971	K-12	283,281	2,364		10,546	108,772	2,278
	Elem.	167,385	1,264		5,232		
	Sec.	115,896	1,100		5,314		

TABLE 20 (continued)

STUDENT ENROLLMENT AND TEACHER
EMPLOYMENT PATTERNS IN PUBLIC SCHOOLS OF CITY, STATE, AND NATION

SCHOOL YEAR	GRADE LEVEL	STUDENT INROLLMENT			TEACHERS EMPLOYED FULL TIME		
		PHILA.	PA.	US.	PHILA.	PA.	US.
1971-1972	K-12	280,320	2,371	46,081	10,491	109,035	2,275
	Elem.	165,488	1,249		4,970		
	Sec.	114,832	1,122		5,521		
1972-1973	K-12	279,427	2,361		4,991		
	Elem.	160,713	1,225		4,991		
	Sec.	118,714	1,136		5,931		
1973-1974	K-12	279,903	2,322		10,714	113,089	2,315
	Elem.	152,925	1,184		4,660		
	Sec.	119,978	1,138		6,054		
1974-1975	K-12	267,525	2,293	44,900	11,135	113,300	2,317
	Elem.	147,226	1,159		5,263		
	Sec.	120,299	1,134		5,872		
1975-1976	K-12	262,530	2,261	2,261	11,337	113,300	2,317
	Elem.	139,717	1,141		5,392		
	Sec.	122,813	1,120		5,945		

TABLE 21

SCHOOL DISTRICT OF PHILADELPHIA
TEACHER NEEDS FOR 1980-1981
ESTIMATED FROM THREE BASES

Level of Estimate	Based on projection of School District's proportion of public school teachers in United States	Based on projection of School District's proportion of public school teachers in United States	Based on projection of School District's student enrollment and student-teacher ratios shown in parentheses
High	11,681	11,609	11,550 (20:1)
Probable	11,255	11,183	10,500 (22:1)
Low	10,493	10,331	9,240 (25:1)

APPENDIX

APPENDIX A
SCHOOL DISTRICT TEACHERS
AS A PERCENT OF PUBLIC SCHOOL
TEACHERS EMPLOYED WITHIN PENNSYLVANIA AND NATION
1967 - 1976

School Year	Nation	Pennsylvania
1967 - 68	0.493%	10.8%
1968 - 69	0.471	10.1
1969 - 70	0.471	9.9
1970 - 71	0.463	9.7
1971 - 72	0.461	9.6
1972 - 73	0.473	9.8
1973 - 74	0.463	9.5
1974 - 75	0.481	9.8
	PROJECTION	
1975 - 76	0.489	10.0

APPENDIX B

PUBLIC SCHOOL STUDENT/TEACHER RATIOS
IN PHILADELPHIA, PENNSYLVANIA AND THE NATION: 1967-1976

CLASS SIZE

School Year	Average K-12			Elementary		Secondary	
	Phila.	Penna.	Nation	Phila.	Nation	Phila.	Nation
1967 - 68	27.3 : 1	23.9 : 1	21.1 : 1	33.0 : 1	26.3 : 1	21.4 : 1	20.3 : 1
1968 - 69	27.9	22.9	20.8	34.1	25.4	21.7	20.5
1969 - 70	27.0	22.1	20.4	32.6	24.8	21.4	20.0
1970 - 71	26.9	21.7	20.2	32.0	24.3	21.8	19.8
1971 - 72	26.7	21.7	20.3 -	33.3	24.9	20.8	19.3
1972 - 73	25.6	21.1	19.8	32.2	24.4	20.0	18.9
1973 - 74	25.5	20.5	19.6	32.8	24.1	19.8	18.7
1974 - 75	24.0	20.2	19.4	28.0	23.8	20.5	18.6
		PROJECTION			PROJECTION		PROJECTION
1975 - 76	23.2	20.0	19.2	25.9	23.5	20.7	18.5